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09/516,090	03/01/2000	Walter Wesley Howe	99-003	2870

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EXAMINER

GANTT, ALAN T

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/516,090

Applicant(s)

HOWE, WALTER WESLEY

Examiner

Alan T. Gantt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-21 and 25-27 is/are allowed.
- 6) ☐ Claim(s) 1-18, 22 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 23, 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/22/04 have been fully considered but they are not persuasive. Applicant has amended independent claims with material previously indicated as allowable. However, newly discovered art related to IP addresses and mobile telephone has been discovered that may not allow novelty over the prior art rejection presented in the last Office Action. Therefore, allowability has been removed. Also, several independent claims lack a level of detail to define applicant's invention. Therefore, a 112 Rejection has been placed on those claims as a requirement to more fully define the invention.

Claim Objections

2. Applicant is advised that should claim 15 be found allowable, claim 18 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

3. Claim 22 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 19. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim

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to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. Claims 15, 18, 28 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 9, 10, 13, 14, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al., in view of Forslow.

Regarding claim 1, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries. The method and system makes it unnecessary to query the HLR and VLR when a land-to-mobile call arrives (col. 2,

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lines 3-28). A server is considered here to be an inherent component of a data processing system that handles databases. Also, “a mobile identification number” is read more broadly than “the mobile identification number, i.e., any assigned number that identifies the mobile station. Ho meets the following limitations:

- Receiving by a server data destined for the mobile terminal (col. 4, lines 53-65).
- Identifying a mobile identification number associated with the mobile terminal (col. 4, lines 43-53).
- Determining a route that excludes a home node associated with the identified mobile identification number when a visited node serves the identified mobile identification number (col. 5, lines 18-41).
- Sending the received data to the mobile terminal on a connection initiated by the server and established via the determined route (col. 4, line 66 to col. 5, line 41).

Ho does not deal with servers providing pre-assigning IP addresses for mobile terminals.

Forslow discloses a method for common access between a mobile communication network and an external network with selectable packet-switched and circuit-switched services.

Forslow is relied upon for it's teaching of assigning IP addresses to mobile terminals. Thus,

Forslow meets the following limitations:

pre-assigning a plurality of Internet Protocol addresses to the server; (paragraphs 0051 and 0104) and

configuring the server to associate one of the pre-assigned IP addresses with the mobile terminal (paragraphs 0051 and 0104).

Ho and Forslow are combinable because they share a common endeavor, namely mobile telecommunications. At the time of the applicant's invention it would have been obvious to modify Ho to include utilizing IP addresses for mobile terminals as done by Forslow to allow for mobile Internet applications.

Regarding claim 2, Ho meets the following limitations:

- Receiving by the server data from the mobile terminal on the established connection (col. 4, lines 53-65).
- Sending to the wireline terminal the data received from the mobile terminal (col. 4, line 66 to col. 5, line 41).

Regarding claim 4, Ho meets the following limitation:

- Sending the data by the wireline terminal to the server to establish communication with the mobile terminal (col. 4, line 66 to col. 5, line 41).

Regarding claim 9, Ho meets the following limitation:

- Requesting the route from a home location register serving the identified mobile identification number (col. 2, lines 11-22).

Regarding claim 10, Ho meets the following limitation:

- Receiving from a home location register serving the identified mobile identification number a temporary local directory number for establishing the connection to the mobile terminal (col. 4, line 11 to col. 5, line 17).

Regarding claim 13, Ho meets the following limitation:

- Initiating a call by the server to the mobile terminal based on a temporary location directory number received from a home location register associated with the mobile terminal (col. 4, line 11 to col. 5, line17).

Regarding claim 14, Ho meets the following limitation:

- initiating a call by the server to the mobile terminal based on a temporary location directory number received from the visited node serving the identified mobile identification number (col. 4, line 11 to col. 5, line17).

Regarding claim 29, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries as stated above for claim 1. A computer-readable medium capable of configuring a computer to perform this method and the required steps are inherent to the system. A server is considered here to be an inherent component of a data processing system that handles databases. Thus, Ho meets the following limitations:

- Receiving from the wireline terminal data destined for the mobile terminal (col. 4, lines 53-65);

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- Identifying a mobile identification number associated with the mobile terminal (col. 4, lines 43-53);
- Determining a route that excludes a home node associated with the identified mobile identification number when a visited node serves the identified mobile identification number (col. 5, lines 18-41);
- Establishing a connection via the determined route to the mobile terminal (col. 4, line 66 to col. 5, line 41);
- Sending the data to the mobile terminal on the established connection (col. 4, line 66 to col. 5, line 41).

Ho does not deal with servers providing pre-assigning IP addresses for mobile terminals.

Forslow discloses a method for common access between a mobile communication network and an external network with selectable packet-switched and circuit-switched services.

Forslow is relied upon for its teaching of assigning IP addresses to mobile terminals. Thus,

Forslow meets the following limitations:

pre-assigning a plurality of Internet Protocol addresses to the server; (paragraphs 0051 and 0104) and

configuring the server to associate one of the pre-assigned IP addresses with the mobile terminal (paragraphs 0051 and 0104).

Ho and Forslow are combinable because they share a common endeavor, namely mobile telecommunications. At the time of the applicant's invention it would have been obvious to

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modify Ho to include utilizing IP addresses for mobile terminals as done by Forslow to allow for mobile Internet applications.

Regarding claim 30, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries. The method and system makes it unnecessary to query the HLR and VLR when a land-to-mobile call arrives (col. 2, lines 3-28). Ho meets the following limitations:

- Receiving data destined for the mobile terminal (col. 4, lines 53-65).
- Providing a route that excludes a home node associated with the mobile terminal when a visited node serves the mobile terminal for communicating received data (col. 4, line 43 to col. 5, line 41).

Ho does not deal with servers providing pre-assigning IP addresses for mobile terminals.

Forslow discloses a method for common access between a mobile communication network and an external network with selectable packet-switched and circuit-switched services. Forslow is relied upon for its teaching of assigning IP addresses to mobile terminals. Thus, Forslow meets the following limitations:

pre-assigning a plurality of Internet Protocol addresses to the server; (paragraphs 0051 and 0104) and

configuring the server to associate one of the pre-assigned IP addresses with the mobile terminal (paragraphs 0051 and 0104).

Ho and Forslow are combinable because they share a common endeavor, namely mobile telecommunications. At the time of the applicant's invention it would have been obvious to modify Ho to include utilizing IP addresses for mobile terminals as done by Forslow to allow for mobile Internet applications.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 5-8, 11, 12, 15-18, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al., in view of Wang, and further in view of Forslow.

Regarding claims 15 and 18, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries. The method and system makes it unnecessary to query the HLR and VLR when a land-to-mobile call arrives (col. 2, lines 3-28). Ho meets the following limitation:

- Sending the data packets to a server for communicating the data packets to the mobile terminal on a connection initiated by the server such that the connection is established via a route that excludes a home node associated with the mobile

terminal when the mobile terminal resides outside of a geographical area served by the home node ((col. 4, line 43 to col. 5, line 41)).

Ho is silent regarding the assembling of wireline terminal data into packets.

Wang discloses a method and system integrating wireless/wireline and circuit /packet networks for cellular /PCS services so that GSM subscribers roaming into CDMA networks using IP networks (col. 2, lines 48-59). Wang is relied upon for teaching the following limitations:

- Assembling by the wireline terminal data into one or more data packets (col. 10, lines 6-21).

Also, Ho does not deal with servers providing pre-assigning IP addresses for mobile terminals.

Forslow discloses a method for common access between a mobile communication network and an external network with selectable packet-switched and circuit-switched services.

Forslow is relied upon for it's teaching of assigning IP addresses to mobile terminals. Thus,

Forslow meets the following limitations:

pre-assigning a plurality of Internet Protocol addresses to the server; (paragraphs 0051 and 0104) and

configuring the server to associate one of the pre-assigned IP addresses with the mobile terminal (paragraphs 0051 and 0104).

Ho, Forslow, and Wang are combinable because they share a common endeavor, namely, radio telecommunication system routing to a roaming mobile station. At the time of the

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applicant's invention it would have been obvious to modify Ho to allow for handling data packets as done by Wang and to include IP address for mobile terminals as done by Forslow in order to include IP networks.

Regarding claim 16, Wang meets the following limitation:

- Including in the data packets an identifier associated with the mobile terminal (col. 6, lines 28-44).

Regarding claim 17, Wang meets the following limitation:

- Including in the data packets an Internet Protocol (IP) address associated with the server and the mobile terminal (col. 4, lines 50-61 and col. 6 lines 28-44).

Regarding claim 28, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries. The method and system makes it unnecessary to query the HLR and VLR when a land-to-mobile call arrives (col. 2, lines 3-28). Ho meets the following limitation:

- A server for receiving from a wireline terminal one or more data packets destined for the mobile terminal, and for determining a route that excludes the home node when the mobile terminal is served by the visited node, and for establishing via the determined route a connection to the mobile terminal, and for sending the data

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packets on the established connection to the mobile terminal (col. 4, lines 43 to col. 5, line 41).

Ho is silent regarding the assembling of wireline terminal data into packets.

Wang discloses a method and system integrating wireless/wireline and circuit /packet networks for cellular /PCS services so that GSM subscribers roaming into CDMA networks using IP networks (col. 2, lines 48-59). Wang meets the following limitations:

- A home node serving a mobile terminal when the mobile terminal is in a geographical area served by the home node (col. 1, lines 15-20);
- A visited node serving the mobile terminal when the mobile terminal is outside of the geographical area served by the home node (col. 1, lines 15-20).

Also, Ho does not deal with servers providing pre-assigning IP addresses for mobile terminals.

Forslow discloses a method for common access between a mobile communication network and an external network with selectable packet-switched and circuit-switched services. Forslow is relied upon for it's teaching of assigning IP addresses to mobile terminals. Thus, Forslow meets the following limitations:

pre-assigning a plurality of Internet Protocol addresses to the server; (paragraphs 0051 and 0104) and

configuring the server to associate one of the pre-assigned IP addresses with the mobile terminal (paragraphs 0051 and 0104).

Ho, Forslow, and Wang are combinable because they share a common endeavor, namely, radio telecommunication system routing to a roaming mobile station. At the time of the applicant's invention it would have been obvious to modify Ho to allow for handling data packets as done by Wang and to include IP address for mobile terminals as done by Forslow in order to include IP networks.

Regarding claim 3, which includes the following limitation:

- Determining by the server another route that includes the home node when the home node serves the identified mobile identification number.

Ho provides for the gateway MSC seeking a MSRN (roaming number) from the HLR for the mobile station but is silent regarding what happens when there is no MSRN returned.

The examiner takes Official Notice that it is well known for the server to choose a route that includes the home node when the home node is currently serving a MIN that is based within that node and at the time of the applicant's invention it would have been obvious to modify Ho include recognizing that mobile station is located within to the home cell and providing the call setup at the home cell to reduce network traffic.

Regarding claim 5, Ho discloses a method and system for allowing the routing of calls from a gateway mobile switching center to a visiting mobile switching center by reducing the number of home location register and visitor location register inquiries. The method and system makes it unnecessary to query the HLR and VLR when a land-to-mobile call arrives (col. 2, lines 3-28). A server is considered here to be a component of a data processing system that

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handles databases. However, Ho is circuit switched and is silent regarding the use of data packets for transmission.

Wang discloses a method and system integrating wireless/wireline and circuit /packet networks for cellular /PCS services so that GSM subscribers roaming into CDMA networks using IP networks (col. 2, lines 48-59). Wang meets the following limitation:

- Sending the data by the wireline terminal to the server via a packet network to establish communication with the mobile terminal (Figure 4).

Ho and Wang are combinable because they share a common endeavor, namely, radio telecommunication system that seek to exclude the interaction with the HLR in routing a roaming mobile station. At the time of the applicant's invention it would have been obvious to modify Ho to include a server for handling data packets as done by Wang in order to in order to include IP networks.

Regarding claim 6, Wang meets the following limitation:

- Identifying the mobile identification number based on an identifier associated with the mobile terminal (col. 8, lines 6-21).

Regarding claim 7, Wang meets the following limitation:

- identifying the mobile identification number based on an Internet Protocol (IP) address associated with the server and the mobile terminal (col. 8, lines 6-21).

Regarding claim 8, neither Ho nor Wang meet the following limitation:

- The determining step comprises the step of identifying a home location register based on the identified mobile identification number.

However, the examiner takes Official Notice that it is well known to be able to identify the home location register based on the identified MIN and that it would have been obvious to modify Ho to include means for identifying the home location register using a MIN as this would provide for easier tracking of roaming mobile stations.

Regarding claims 11 and 12, the examiner takes Official Notice that it is well known to utilize a modem to establish data connections and it would have been obvious to modify the Ho / Wang combination to utilize a modem as this is a useful tool for establishing data packet communication.

Allowable Subject Matter

9. Claims 19-21 and 25-27 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 25, a server containing a second table including information for identifying a home location register associated with the mobile terminal was neither found, suggested, nor made evident by the prior art.

Regarding claim 19, the second table identifying a home location register associated with the mobile identification number was neither found, suggested, nor made evident by the prior art.

Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

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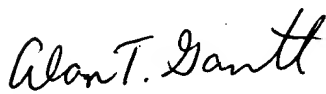
Regarding claim 23, information in a second table that include point codes associated with the home location register was neither found, suggested, nor made evident by the prior art.

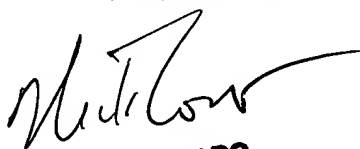
Regarding claim 24, information in the second table that includes a range of one or ore directory numbers associated with the home location register was neither found, suggested, nor made evident by the prior art.

Conclusion

11. Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (703) 305-0077. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (703) 872-9314.

Any inquiry of a general nature or relating to this application should be directed to the group receptionist at telephone number (703) 305-4700.


Alan T. Gantt


NICK CORSARO
PATENT EXAMINER

June 25, 2004